

CLAIMS

What is claimed is:

1. A reinforced structural member comprising:
 - a hollow structure defining a cavity;
 - a bag disposed within said cavity defining a space; and
 - a material disposed within said bag filling said space.
2. The assembly according to claim 1, wherein said structure includes a hole and said bag includes a compressed size equal to or smaller than said hole facilitating insertion of said bag into said cavity.
3. The assembly according to claim 2, wherein a cap is installed in said hole enclosing said cavity.
4. The assembly according to claim 2, wherein said bag includes an end having an opening facilitating insertion of said material into said bag.
5. The assembly according to claim 4, wherein said end is disposed within said cavity.
6. The assembly according to claim 1, wherein said material is a structural foam .
7. The assembly according to claim 6, wherein said structural foam is two-part epoxy.

8. The assembly according to claim 1, wherein said structure is an axle.
9. The assembly according to claim 8, wherein a suspension component is secured to said axle proximate to said material.
10. The assembly according to claim 9, wherein said structure includes a hole with a cap having a locating feature disposed in said hole, said locating feature positioning said suspension component.

11. A method of locally reinforcing a hollow structure comprising the steps of:
 - a) inserting a bag into a cavity of a structure;
 - b) filling the bag with a material; and
 - c) expanding the material.
12. The method according to claim 9, wherein the material is a structural foam.
13. The method according to claim 9, wherein the bag is closed prior to step C.
14. The method according to claim 9, wherein the end of the bag is closed and inserted into the cavity.
15. The method according to claim 9, when step a) includes inserting the bag through a hole in the structure and a cap is installed into the hole subsequent to step b).
16. The method according to claim 9, wherein a component is secured to the structure proximate to the material.